



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,187	02/13/2001	Atsushi Ogino	58799-038	8810

7590 08/12/2004

McDermott, Will & Emery  
600, 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER
----------

BEHULU, ALEMAYEHU

ART UNIT	PAPER NUMBER
----------	--------------

2682

DATE MAILED: 08/12/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/781,187

Applicant(s)

OGINO ET AL.

Examiner

Alemayehu Behulu

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-25 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

Art Unit: 2682

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group I in the reply filed on 06/14/2004 is acknowledged. In addition, since groups II-VI are not elected, they are now withdrawn from further consideration.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Nozawa (U.S. Patent No. 5, 736, 934).

Regarding claim 10 a method of furnishing a location service, comprising: making change to the sending timing of a specific signal pattern of radio waves transmitted at given intervals from a base station regularly (figure 3, column 2, lines 60-column 3, lines 17, column 3, lines 21-25) ; and notifying a specific mobile terminal or station of the altered reference time offset of said sending timing or updated sending timing of said signal pattern (column 2, lines 37-59 and figure 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 3, 7, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman (U.S. Patent No. 6, 429, 815) in view of Manabe (U.S. Patent No. 5, 423, 067).

Regarding claims 1, 22 Soliman discloses a method of furnishing a location service comprising: transmitting a specific signal pattern at given intervals (column 2, lines 44-53, column 3, lines 41-column 4, lines 4, column 4, lines 20-34, column 5, lines 61-column 6, lines 13, column 10, lines 31-39 column 11, lines 3-19) from at least three base stations (figures 2B and 11, column 16, lines 36-43), which allows a mobile terminal or station that received said signal pattern to locate itself by using positional information about said base stations (column 4, lines 20-34, column 2, lines 31-37 and lines 49-53, column 10, lines 31-39, column 11, lines 3-19), making change to the sending timing of said signal pattern from at least one of said base stations (column 20, lines 64-column 21, lines 7, column 21, lines 16-24, column 22, lines 27-46 ), and notifying said mobile terminal or station of the altered reference time offset (or information on phase shift from the reference time) of said sending timing or updated sending timing of said signal pattern on the occasion of said change (column 21, lines 7-10, column 21, lines 16-24,

Art Unit: 2682

column 22, lines 27-46). However, Soliman fails to disclose sending timing (or information on phase shift from the reference time) of each said signal pattern from said base stations, and signal pattern receiving time information. But, Manabe discloses sending timing (or information on phase shift from the reference time) of each said signal pattern from said base stations, and signal pattern receiving time information (column 4, lines 60-column 5, lines 20). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Soliman (U.S. Patent No. 6, 429, 815) with Manabe (U.S. Patent No. 5, 423, 067) in order to nullify the time lag and establish synchronization of communications between the base stations and the mobile as suggested by Manabe.

Regarding claim 2, the combination of Soliman and Manabe disclose the method of furnishing a location service according to claim 1, wherein in response to a request issued from said mobile terminal or station to at least one of said base stations (see Soliman column 13, lines 4-7 and lines 37-60, column 14, lines 20-54, column 16, lines 29-36), the notification of said altered reference time offset or updated sending timing of said signal pattern is sent to said mobile terminal or station (see Soliman column 13, lines 37-column 14, lines 6, column 14, lines 20-54, column 16, lines 37-43).

Regarding claim 7, the combination of Soliman and Manabe the method of furnishing a location service according to claim 1, wherein said base stations which are at least three each broadcast the positional information about their own and neighboring base stations over their broadcast channel or control channel or sends such information to said mobile

Art Unit: 2682

terminal or station in response to said request therefrom (see column 2, lines 17-30, Manabe column 4, lines 40-column 5, lines 20 and figures 1 and 5).

Regarding claim 3, the combination of Soliman and Manabe disclose the method of furnishing a location service according to claim 2, wherein after receiving information to identify said mobile terminal or station together with said request and verifying the identification of said mobile terminal or station (see Soliman column 13, lines 37-column 14, lines 6, column 14, lines 20-54, column 16, lines 37-43), the notification of said altered reference time offset or updated sending timing of said signal pattern is sent to said mobile terminal or station (see Soliman column 13, lines 37-61).

4. Claims 4, 5, 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman (U.S. Patent No. 6, 429, 815) and Manabe (U.S. Patent No. 5, 423, 067) in view of Pirila (U.S. Patent No. 6, 674, 860).

Regarding claim 4, the combination of Soliman and Manabe disclose the method of furnishing a location service according to claim 2. However, Soliman and Manabe fail to disclose charging data for said mobile terminal or station is updated in response to said request. But, Pirila discloses charging data for said mobile terminal or station is updated in response to said service (column 1, lines 27-29, column 3, lines 35-42, column 4, lines 13-21). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Soliman (U.S. Patent No. 6, 429, 815) and Manabe

Art Unit: 2682

(U.S. Patent No. 5, 423, 067) with Pirila (U.S. Patent No. 6, 674, 860) in order to generate revenue.

Regarding claim 5, the combination of Soliman, Manabe and Pirila disclose the method of furnishing a location service according to claim 1 wherein said mobile terminal or station is furnished with a decrypting key (see Pirila column 3, lines 48-65, column 2, lines 23-57, column 4, lines 26-column 5, lines 25) and said base stations which are at least three each encrypt said altered reference time offset or updated sending timing of each said signal pattern transmitted from them and broadcast such encrypted information over their broadcast channel or control channel (see Pirila figures 1, 2, column 2, lines 23-57, column 4, lines 26-column 5, lines 25).

Regarding claims 8, the combination of Soliman and Manabe disclose the method of furnishing a location service according to claim 3, wherein said mobile terminal or station is notified of said altered reference time offset or updated sending timing of said signal pattern (see Soliman column 13, lines 37-61). However, Soliman and Manabe fail to disclose one of different precision levels, according to the agreement that its owner concluded with the administrator of said base stations. But, Pirila discloses the charging of the mobile user (column 1, lines 27-29, column 3, lines 35-42 and lines 65- column 4, lines 21). Regarding the claimed limitations of precision levels, according to the agreement that its owner concluded with the administrator of said base stations, the fact Pirila discloses charging for the location service, clearly indicates precision levels of agreement made between the service provider and mobile user. Therefore, at the time of

Art Unit: 2682

the invention it would have been obvious to a person of ordinary skill in the art to modify Pirila in order to generate revenue.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman (U.S. Patent No. 6, 429, 815) and Manabe (U.S. Patent No. 5, 423, 067) in view of Nozawa (U.S. Patent No. 5, 736, 934).

Regarding claim 6, the combination of Soliman and Manabe disclose the method of furnishing a location service according to claim 1. However, Soliman and Manabe fail to disclose the timing of sending said signal pattern from at least one of said base stations is changed regularly. But, Nozawa discloses the timing of sending said signal pattern from at least one of said base stations is changed regularly (column 2, lines 61-column 3, lines 18 and column 3, lines 21-25 and figure 3 and column 1, lines 7-15). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Soliman (U.S. Patent No. 6, 429, 815) and Manabe (U.S. Patent No. 5, 423, 067) with Nozawa (U.S. Patent No. 5, 736, 934) in order to selectively communicate with mobile unit by using multiple transmission as suggested by Nozawa.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934) in view of Ushiki (U.S. Patent No. 6, 549, 775).

Regarding claim 11, Nozawa discloses the method of furnishing a location service according to claim 10 and mobile terminal or station is notified of the altered reference



Art Unit: 2682

time offset of said sending timing or updated sending timing of said signal pattern (see claim 10 above). However, Nozawa fails to disclose the identification of said mobile terminal or station is verified. But, Ushiki discloses the identification of said mobile terminal or station is verified (column 5, lines 47-67). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nozawa (U.S. Patent No. 5, 736, 934) with Ushiki (U.S. Patent No. 6, 549, 775) for effective use of radio resources by reducing the useless paging time without increasing registration requests as suggested by Ushiki.

7. Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934) and Ushiki (U.S. Patent No. 6, 549, 775) in view of Pirila (U.S. Patent No. 6, 674, 860).

Regarding claim 12, the combination Nozawa and Ushiki disclose The method of furnishing a location service according to claim 11. However, Nozawa and Ushiki fail to disclose wherein said mobile terminal or station is notified of said altered reference time offset or updated sending timing of said signal pattern on one of different precision levels, according to the agreement that its owner concluded with the administrator of at least three base stations including said base station. But, Pirila discloses wherein said mobile terminal or station is notified of said altered reference time offset or updated sending timing of said signal pattern (column 13, lines 37-column 14, lines 6, column 14, lines 20-35) on one of different precision levels, according to the agreement that its owner concluded with the administrator of at least three base stations including said base

Art Unit: 2682

station. Regarding the claimed limitations of precision levels, according to the agreement that its owner concluded with the administrator of said base stations, the fact Pirila discloses charging for the location service, clearly indicates precision levels of agreement made between the service provider and mobile user. Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Pirila in order to generate revenue.

Regarding claim 13, the combination Nozawa and Ushiki disclose the method of furnishing a location service according to claim 11 and the identification of said mobile terminal or station is verified (see Ushiki, column 5, lines 47-67). However, Nozawa and Ushiki fail to disclose the charging data for said mobile terminal or station is updated. But, Pirila the charging data for said mobile terminal or station is updated (column 1, lines 27-29, column 4, lines 13-21). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nozawa (U.S. Patent No. 5, 736, 934) and Ushiki (U.S. Patent No. 6, 549, 775) with Pirila (U.S. Patent No. 6, 674, 860) in order to generate revenue.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934) in view of Pirila (U.S. Patent No. 6, 674, 860).

Regarding claim 14, Nozawa discloses the method of furnishing a location service according to claim 10. However, Nozawa fails to disclose mobile terminal or station is furnished with a decrypting key and said base station encrypts said altered reference time

Art Unit: 2682

offset or updated sending timing of said signal pattern transmitted from it and broadcasts such encrypted information over its broadcast channel or control channel. But, Pirila discloses mobile terminal or station is furnished with a decrypting key (column 4, lines 65-column 5, lines 6, column 5, lines 19-25) and said base station encrypts said altered reference time offset or updated sending timing of said signal pattern transmitted from it (column 3, lines 48-62, column 7, lines 26-36, column 9, lines 46-53) and broadcasts such encrypted information over its broadcast channel or control channel (column 4, lines 65-column 5, lines 6, column 9, lines 46-53). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nozawa (U.S. Patent No. 5, 736, 934) with Pirila (U.S. Patent No. 6, 674, 860) in order to secure the communication as suggested by Pirila.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934) in view of Soliman (U.S. Patent No. 6, 429, 815).

Regarding claim 15, Nozawa discloses a method of furnishing a location service (figure 3 and column 1, lines 7-15) comprising: making change to the sending timing of a specific signal pattern of radio waves transmitted at given intervals from a base station regularly or at irregular intervals (column 2, lines 13-18 and lines 60-column 3, lines 18 and column 3, lines 21-25). However, Nozawa fails to disclose calculating the location of a mobile terminal or station, based on the data on receiving timing of said signal pattern at said mobile terminal or station (column 16, lines 22-36, lines 43-column 17, lines 17); and notifying said mobile terminal or station of the result of calculation (column 16, lines

Art Unit: 2682

37- column 17, lines 17). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nozawa (U.S. Patent No. 5, 736, 934) with Soliman (U.S. Patent No. 6, 429, 815) in order to determine the precise location of the mobile.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934) and Soliman (U.S. Patent No. 6, 429, 815) in view of Ushiki (U.S. Patent No. 6, 549, 775).

Regarding claim 16, the combination of Nozawa and Soliman disclose the method of furnishing a location service according to claim 15. However, Nozawa and Soliman fail to disclose the identification of said mobile terminal or station is verified and the location of said mobile terminal or station is calculated. But, Ushiki discloses Nozawa and Soliman fail to disclose the identification of said mobile terminal or station is verified and the location of said mobile terminal or station is calculated (column 5, lines 47-67).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nozawa (U.S. Patent No. 5, 736, 934) with Ushiki (U.S. Patent No. 6, 549, 775) for effective use of radio resources by reducing the useless paging time without increasing registration requests as suggested by Ushiki.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934) and Soliman (U.S. Patent No. 6, 429, 815) in view of Pirila (U.S. Patent No. 6, 674, 860).

Art Unit: 2682

Regarding claim 17, the combination of Nozawa and Soliman disclose the method of furnishing a location service according to claim 16. However, Nozawa and Soliman fail to disclose wherein said mobile terminal or station is notified of the result of calculation of its location on one of different precision levels, according to the agreement that its owner concluded with the administrator of said base station. But, Pirila discloses wherein said mobile terminal or station is notified of the result of calculation of its location (column 3, lines 3-8) on one of different precision levels, according to the agreement that its owner concluded with the administrator of said base station. Regarding the claimed limitations of precision levels, according to the agreement that its owner concluded with the administrator of said base stations, the fact Pirila discloses charging for the location service, clearly indicates precision levels of agreement made between the service provider and mobile user. Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Pirila in order to generate revenue.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (U.S. Patent No. 5, 736, 934), Soliman (U.S. Patent No. 6, 429, 815) and Ushiki (U.S. Patent No. 6, 549, 775) in view of Pirila (U.S. Patent No. 6, 674, 860).

Regarding claim 18, the combination of Nozawa, Soliman and Ushiki disclose The method of furnishing a location service according to claim 16 and the identification of said mobile terminal or station is verified (see Ushiki column 5, lines 47-67). However, Nozawa , Soliman and Ushiki fail to disclose the charging data for said mobile terminal

Art Unit: 2682

or station is updated. But, Pirila discloses the charging data for said mobile terminal or station is updated (column 1, lines 27-29, column 4, lines 13-21). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nozawa (U.S. Patent No. 5, 736, 934), Soliman (U.S. Patent No. 6, 429, 815) and Ushiki (U.S. Patent No. 6, 549, 775) with Pirila (U.S. Patent No. 6, 674, 860) in order to generate revenue.

13. Claims 19 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Ushiki (U.S. Patent No. 6, 549, 775) in view Manabe (U.S. Patent No. 5, 423, 067)

Regarding claim 19, Ushiki discloses a method of location (figure 1) whereby: a mobile terminal or station (figure 1, number 1-6) to locate itself sends its ID and a request for the information on the sending timing of a specific signal pattern transmitted at given intervals from base stations in its vicinity (column 5, lines 47-column 6, lines 9), mobile terminal or station locates itself by using the answer from said base station in the zone where it stays (column 5, lines 62-65). However, Ushiki fails to disclose the information on receiving timing of each said signal pattern from said base stations in its vicinity. However, Manabe discloses the information on receiving timing of each said signal pattern from said base stations in its vicinity (column 4, lines 60-column 5, lines 20), signal pattern transmitted at given intervals from base stations in its vicinity to a base station in the zone where the mobile stays (column 4, lines 40-column 5, lines 20 and figures 1 and 5). Therefore, at the time of the invention it would have been obvious to a

Art Unit: 2682

person of ordinary skill in the art to combine Ushiki (U.S. Patent No. 6, 549, 775) with Manabe (U.S. Patent No. 5, 423, 067) in order to make the handover/hand-off easier.

14. Regarding claim 21, the combination of Ushiki and Manabe disclose the method of location according to claim 19, wherein said mobile terminal or station receives the positional information about the base stations in its vicinity over the broadcast channel or control channel from the base station in the zone where it stays (see Manabe column 4, lines 40-column 5, lines 20 and figures 1 and 5).

15. Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirila (U.S. Patent No. 6, 674, 860) in view Manabe (U.S. Patent No. 5, 423, 067).

Regarding claims 20, Pirila discloses a method of location (figures 1-3) whereby: a mobile terminal or station to locate itself is furnished with a decrypting key and decrypts the encrypted information on the sending timing of a specific signal pattern transmitted at given intervals from base stations in its vicinity (figure 1, figure 3, numbers 31, 310, 313, 314 column 3, lines 48-62, column 4, lines 27-64), which is broadcasted from a base station (column 4, lines 65-column 3) and said mobile terminal or station locates itself by using the thus decrypted information (column 4, lines 27-64, column 7, lines 34-36, column 9, lines 47-53, figure 3, numbers 31, 310, 312) and the information on receiving timing of each said signal pattern from said base stations in its vicinity (column 2, lines 23-46, column 6, lines 26-45, figure 3, numbers 31, 310, 311). However, Pirila fails to disclose signal pattern broadcasted from a base station in the zone where it stays. But, Manabe discloses signal pattern broadcasted from a base station in the zone where it stays

Art Unit: 2682

(figures 1 and 5, column 4, lines 40-column 5, lines 20). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Pirila (U.S. Patent No. 6, 674, 860) with Manabe (U.S. Patent No. 5, 423, 067) in order to make the handover/hand-off easier.

Regarding claim 23, all the limitations for claim presented in claim 20 above. In addition, mobile terminal or station decrypts the encrypted information on sending timing of each said signal pattern transmitted from base stations in its vicinity (see Pirila figures 1-3, column 5, lines 4-25) and the positional information about said base stations, and the information on receiving timing of each said signal pattern from said base stations (please see Manabe column 4, lines 40-column 5, lines 20). The motivation is also the same as for claim 20 above.

16. Claims 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman (U.S. Patent No. 6, 429, 815) and Manabe (U.S. Patent No. 5, 423, 067) in view of Watters (U.S. Patent No. 6, 230, 018).

Regarding claim 24, the combination of Soliman and Manabe disclose the location system according to claim 22. However, Soliman and Manabe fail to disclose a server for storing the information on sending timing of each signal pattern transmitted from said base stations. But, Watters discloses a server for storing the information on sending timing of each signal pattern transmitted from said base stations (figure 3, and column 7,



Art Unit: 2682

lines 52-column 8, lines 40, column 9, lines 4-12, figure 7, numbers 710 and 730, 750).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Soliman (U.S. Patent No. 6, 429, 815) and Manabe (U.S. Patent No. 5, 423, 067) with Watters (U.S. Patent No. 6, 230, 018) in order to reduce error by adding calibration factor between the stored (which is sent) and received time as suggested by Watters.

Regarding claim 25, the combination of Soliman, Manabe and Watters disclose the location system according to claim 22 further comprising a server for storing the information on sending timing of each signal pattern transmitted from said base stations (column 3, lines 18-45, column 4, lines 52-column 5, lines 27).

***Allowable Subject Matter***

17. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 9, the applied references fail to disclose, or render obvious the claimed limitations that if said request is issued from said mobile terminal or station while the sending timing of said signal pattern is changed, a message that location is not possible is sent to said mobile terminal or station as specified in the claim.

Art Unit: 2682

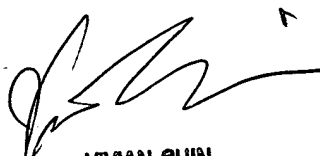
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alemayehu Behulu whose telephone number is 703-305-4828. The examiner can normally be reached on 8 AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600